



DEVAL L. PATRICK  
GOVERNOR

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JUDYANN BIGBY, MD  
SECRETARY

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COMMISSIONER

The Commonwealth of Massachusetts  
Executive Office of Health and Human Services  
Department of Public Health  
William A. Hinton State Laboratory Institute  
305 South Street, Jamaica Plain, MA 02130  
617-983-6622

02/03/12

Kathleen Celio  
Assistant District Attorney, Suffolk County

Dear ADA Celio,

Enclosed are copies of the information you requested regarding sample number [REDACTED] in the following:

1. Drug Analysis Laboratory Receipt.
2. Curriculum Vitae for Daniela Frasca and Annie Khan (Dookhan).
3. Control Card with Analytical Results for sample number [REDACTED].
4. Analysis Notation Forms for the above sample number.
5. GC-MS Raw Data Sheets for the above sample number.

GC-MS confirmatory testing was performed by Annie Khan (Dookhan). All other testing was performed by Daniela Frasca. If you have any questions or concerns about these facts, please contact me at the number below.

Sincerely,

A handwritten signature in black ink, appearing to read 'Daniela Frasca'.

Daniela Frasca  
Chemist II  
Drug Laboratory  
617 983-6631  
fax: 617 983-6625



# Curriculum Vitae

**Daniela Frasca**

## **Education**

**Suffolk University, Boston, MA**

*Graduated in 05/1996 and received a Bachelor of Science in Biochemistry*

## **EXPERIENCE**

**Massachusetts State Laboratory Institute/DPH, Jamaica Plain, MA** 01/2001 – present

**Drug Laboratory: Chemist II**

- Analysis of all substances by chemical screening, microscopy, and instrument confirmation to determine the presence of drugs for law enforcement agencies in the Commonwealth of Massachusetts.
- Appointed assistant analyst on January 29, 2001 by the Assistant Commissioner of DPH
- Completed four weeks of training in drug analysis under the supervision of senior chemists.

**Quest Diagnostics Incorporated, Cambridge, MA**

09/1996 – 10/2001

**Department of Toxicology: Medical Technologist I**

- Handles comprehensive toxic analysis, therapeutic drug monitoring, forensic drug screening, and compound ID's of biohazard samples utilizing standard operating procedures in clinical toxicology.
- Entered data and interpreted results for reporting
- QC/QA of multiple analytical instrumentation as well as maintenance
- Completed 60 days of training under the supervision of doctorate level toxicologists.

## **Additional Training and Graduate Courses**

**Boston University School of Medicine**

Forensic Toxicology

Bloodstain Pattern Analysis

Forensic Pathology

Pattern Evidence Analysis

Trace Evidence Analysis

Forensic Biology

Criminal Law Mock Court (Expert Witness)

**Northeastern Association of Forensic Scientists**

Designer Drugs

Clandestine labs

Agilent Instruments and Software

Digital Photography

**McCrone Research Institute**

Scanning Electron Microscopy and X-ray Microanalysis

Forensic Polarized Microscopy

Polarized Microscopy of Illicit Drugs and Excipients

Chemical Microscopy

Sample Preparation and Manipulation for Microanalysis

**Massachusetts State Laboratory Institute**

Expert Witness Testimony

Portable Raman Spectrometry

## **Associations and Programs**

- Northeastern Association of Forensic Scientists (NEAFS)
- The International Association of Forensic Toxicologists (TIAFT)
- The International Association of Therapeutic Drug Monitoring And Clinical Toxicology (IATDMCT)
- Massachusetts State Science Fair Judge
- Middle School State Science Fair Judge
- TTT Mentor Science Project Mentor/Tutor Volunteer

## Curriculum Vitae

Annie Khan (Dookhan)

### Education:

University of Massachusetts, Boston, Ma, Bachelor of Science

Major: Biochemistry

Minor: Economics

### Experience:

2003 – present

#### Chemist I, II, Massachusetts Department of Public Health, Drug Analysis Laboratory

\*Responsible for the identification of illicit drugs to determine violations of harmful and narcotic drug laws.

\*Writing of the Standard Operating Procedures (SOPs) and Protocols.

\*Responsible for the Quality Control and Quality Assurance of analytical instruments, reagents and controls/standards.

\*Maintenance and repairs of analytical instruments.

\*Trained in the use of complex analytical instrumentation, microscopes and balances for the purpose of drug analysis.

\*Qualified as an expert witness in Massachusetts Courts and U.S. District Court.

\*Completed six-week training course conducted by senior staff within the Department of Public Health, Drug Analysis Laboratory.

\*Appointed Assistant Analyst by Assistant Commissioner of Public Health.

\*Notary Public.

2001 – 2003

#### QC Analyst I, II, UMMS-Massachusetts Biologic Laboratory, QC Material Control

\*Completed proficiency training conducted by a member of the staff within the MBL Quality Control and Quality Assurance Department for the Food and Drug Administration.

\*Method Development for creating new techniques for the QC Dept. and FDA.

\*Writing, revising and reviewing the Standard Operating Procedures (SOPs).

\*Trained and supervised new chemists and interns for the department.

\*Routine QC testing of products for the FDA.

\*Trained in the use of complex analytical instrumentation, and balances for the purpose of QC analysis for product and validation projects.

\*Calibration, preventive maintenance, QC and QA of analytical instrumentation.

\*Complete testing of chemicals for Vendor Validation Project for the FDA.

\*Compendial testing and interpretation of the USP, ACS, FCC, AOAC, Merck Index, PDR, etc.

### Additional Courses:

#### Department of Justice – Forensics Professionals

Introduction to Forensic Drug Chemistry

Chemical Spot Test and Mechanism for Illicit Drugs

Forensic Mass Spectrometry

Forensic Science 101: An Introduction

Fundamentals of Forensic Questioned Documents

Perspectives in Expert Testimony

Evidence Analysis

Ethics in Forensic Science

Transition to Leadership

Fundamentals of Forensic Toxicology

### Additional Trainings:

Good Laboratory Practice/Good Manufacturing Practice (GLP/GMP) training with Massachusetts Biologic Laboratory.

Quality Control/Quality Assurance (QC/QA) training according to FDA Codes and Regulations.

Gas Chromatography (GC) and Gas Chromatography/Mass Spectrometry (GC/MS) trainings with Agilent Technologies and Restek.

High Power Liquid Chromatography (HPLC) and HPLC/MS/MS trainings with Waters Cooperation.

Fourier Transform Infrared Spectroscopy (FTIR) training with Spectros and Spectrum One.

Ultraviolet-Visible Spectroscopy (UV-Vis) training with Agilent Technologies and Beckman.

Total Organic Carbon Analyzer (TOC) training with MBL and Sievers.

### Associations:

American Chemical Society (ACS)

Northeastern Association of Forensics Science (NEAFS)

No. [REDACTED] Date Analyzed: 06-30-11  
City: Boston D.C.U. Police Dept.  
Officer: P.O. SYBIL WHITE  
Def: [REDACTED]

Amount: Subst: SUB  
No. Cont: 3 Cont: pb  
Date Rec'd: 06/22/2011  
Gross Wt.: 26.87

No. Analyzed: 3  
Net Weight: 21.11g  
# Tests: 21 *AM*  
• 6 ASD

Prelim: *(K) Cocaine*

Findings: cocaine

DRUG POWDER ANALYSIS FORM

SAMPLE #



AGENCY

Boston

ANALYST

DAB

PHYSICAL DESCRIPTION:

Biaharand  
PB's in PB's  
(heat-sealed to  
evidence bag)

Balance Check of  
AND ER-180A  
Serial # 2907783  
OK

1311-

Balance Check of  
College Mettler Toledo  
133002, Delta Range  
Serial # 1118042881  
OK

LEV. MCK

Substance in 3 PB

Gross Wt 22.0045g

3 Marg -

3 Froed -

Gross Wt and Net Wt  
of all 3 are on back

3 Meck -

Total Net Wt! (21.1192g)

3 Cabalt -, + Macid

3 Gold +

3 TLTA -, + Macid

PRELIMINARY TEST RESULTS

RESULTS

Cocaine

DATE

6/28/11

GC/MS CONFIRMATORY TEST

RESULTS

Cocaine

MS

OPERATOR

MS

BSN

DATE

6/30/11

14.1403+  
 3.3489+  
3.63+  
 21.1192

Sample #: [REDACTED]

# samples tested: 3

#	Gross Weight	Packet Weight	Net Weight	#	Gross Weight	Packet Weight	Net Weight
1	14.6982		14.1403	26			
2	3.4827		3.3489	27			
3	3.8001		3.6300	28			
4			21.1192	29			
5				30			
6				31			
7				32			
8				33			
9				34			
10				35			
11				36			
12				37			
13				38			
14				39			
15				40			
16				41			
17				42			
18				43			
19				44			
20				45			
21				46			
22				47			
23				48			
24				49			
25				50			

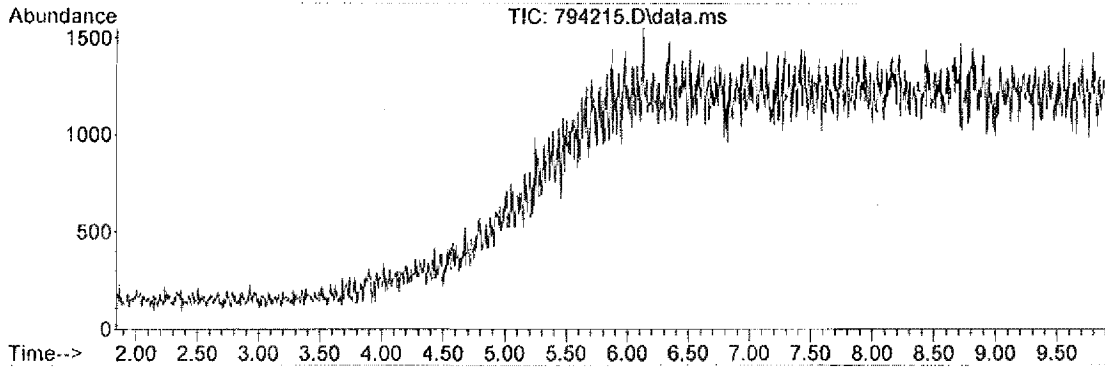
Calculations:

✓ ASD  
 Wt o/c

## Information from Data File:

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Operator : ASD  
Date Acquired : 29 Jun 2011 10:23  
Sample Name : BLANK  
Submitted by : DXF  
Vial Number : 1  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

✓  
ASD  
2-3-12



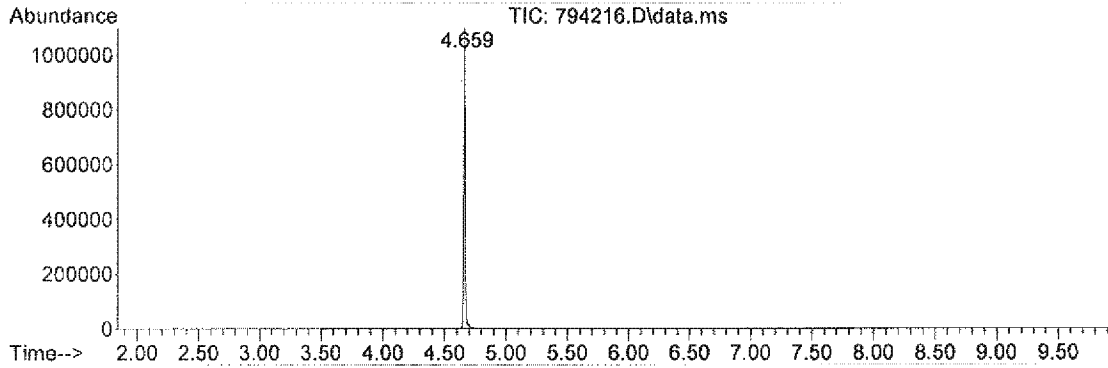
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\*\*\*NO INTEGRATED PEAKS\*\*\*



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Operator : ASD  
Date Acquired : 29 Jun 2011 10:36  
Sample Name : COCAINE STD  
Submitted by : DXF  
Vial Number : 16  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



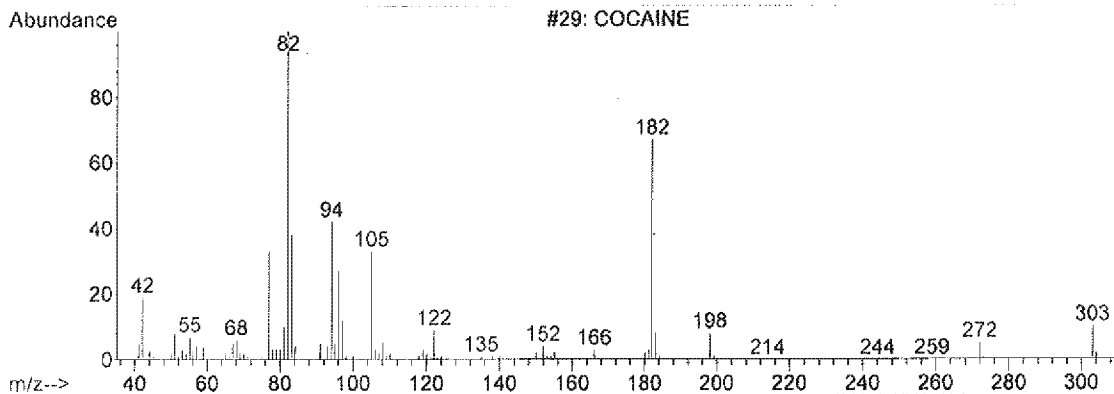
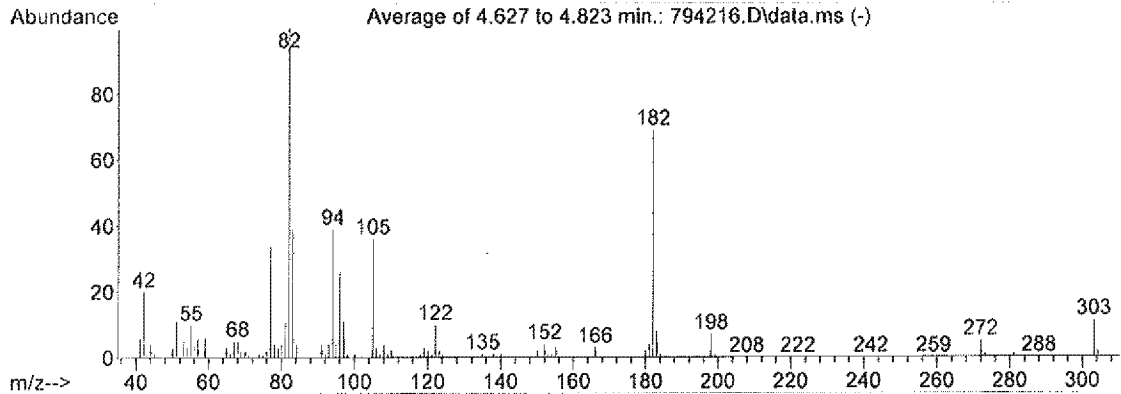
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## Information from Data File:

File Name : F:\Q2-2011\SYSTEM 7\06\_29\_11\794216.D  
Operator : ASD  
Date Acquired : 29 Jun 2011 10:36  
Sample Name : COCAINE STD  
Submitted by : DXF  
Vial Number : 16  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

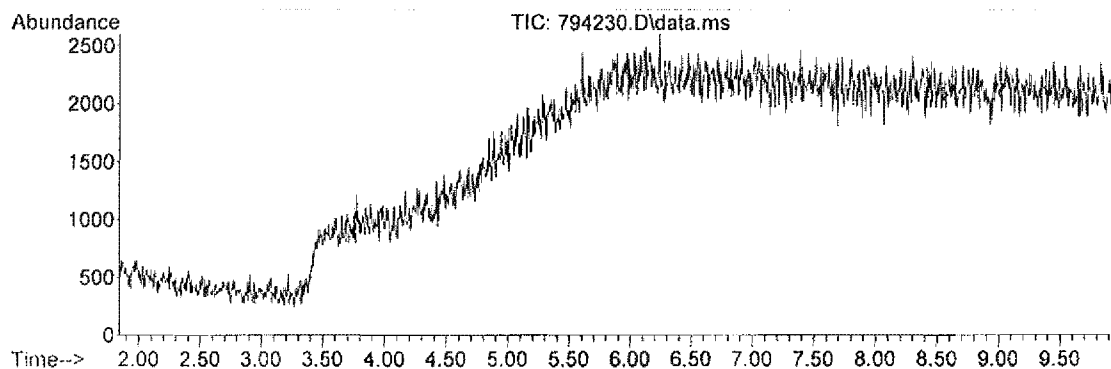
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C:\Database\NIST05a.L Minimum Quality: 80  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	4.66	C:\Database\SLI.L COCAINE	000050-36-2	99



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File Name : F:\Q2-2011\SYSTEM 7\06\_29\_11\794230.D  
Operator : ASD  
Date Acquired : 29 Jun 2011 13:33  
Sample Name : BLANK  
Submitted by : DXF  
Vial Number : 1  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

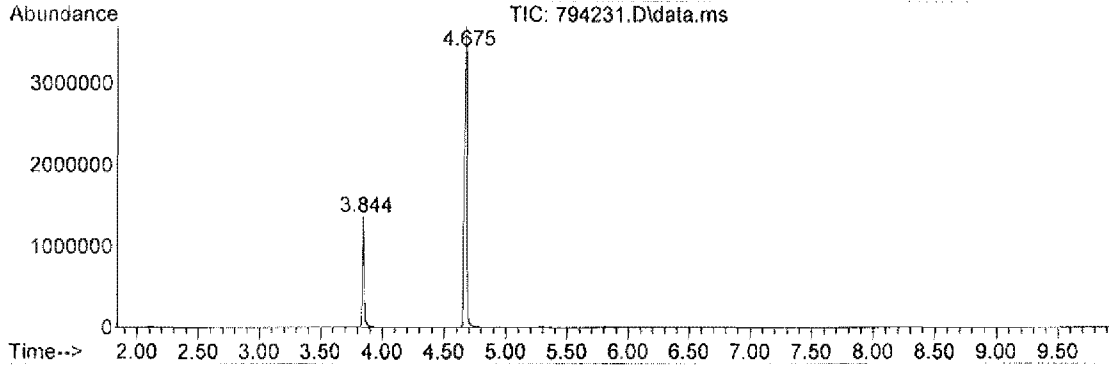


Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

## Information from Data File:

File Name : F:\Q2-2011\SYSTEM 7\06\_29\_11\794231.D  
Operator : ASD  
Date Acquired : 29 Jun 2011 13:46  
Sample Name : XXXXXXXXXX  
Submitted by : DXF  
Vial Number : 31  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



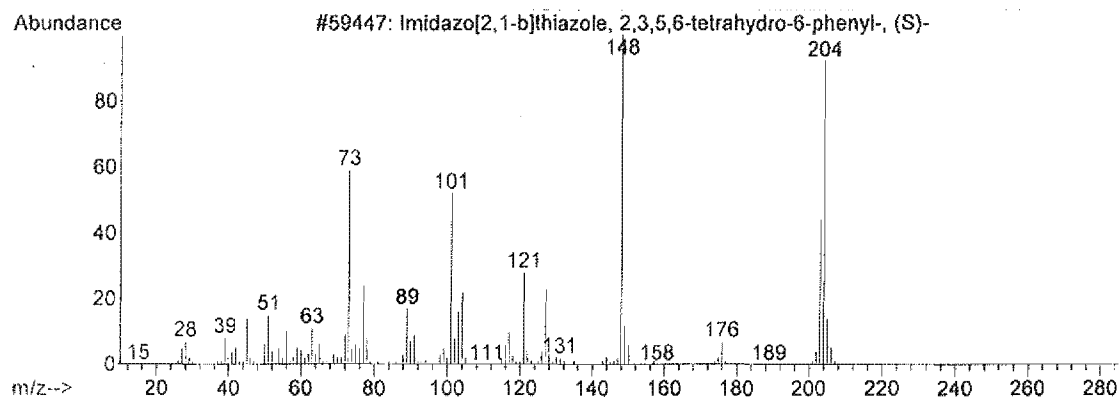
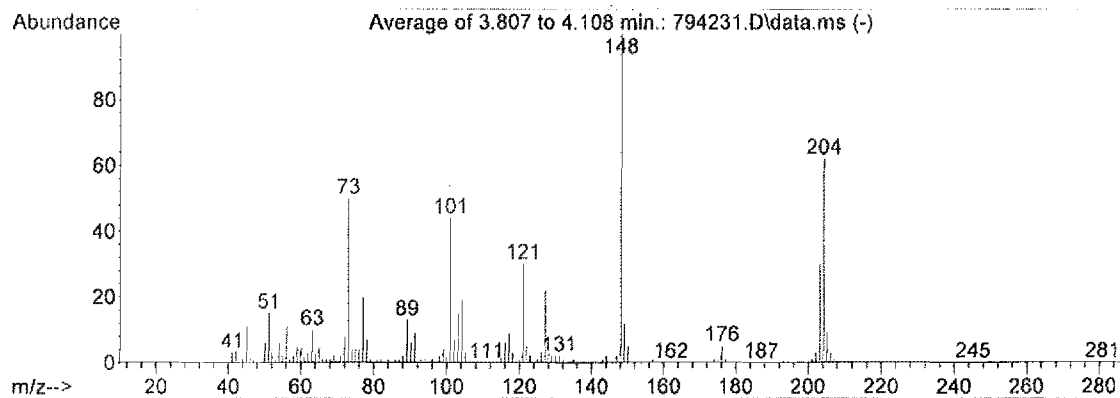
Ret. Time	Area	Area %	Ratio %
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4.675	5690765	79.36	100.00

## Information from Data File:

File Name : F:\Q2-2011\SYSTEM 7\06\_29\_11\794231.D  
Operator : ASD  
Date Acquired : 29 Jun 2011 13:46  
Sample Name : XXXXXXXXXX  
Submitted by : DXF  
Vial Number : 31  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 80  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	3.84	C:\Database\NIST05a.L		
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	014769-73-4	99
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	006649-23-6	98
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	014769-73-4	98

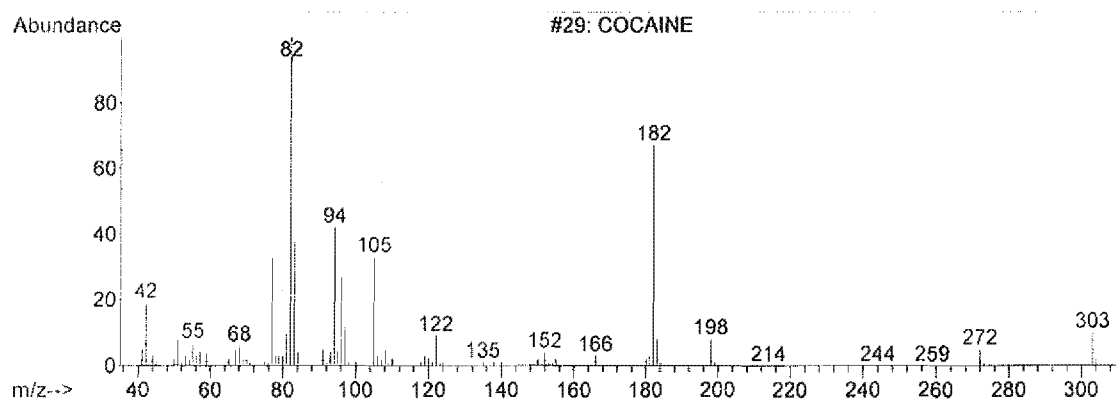
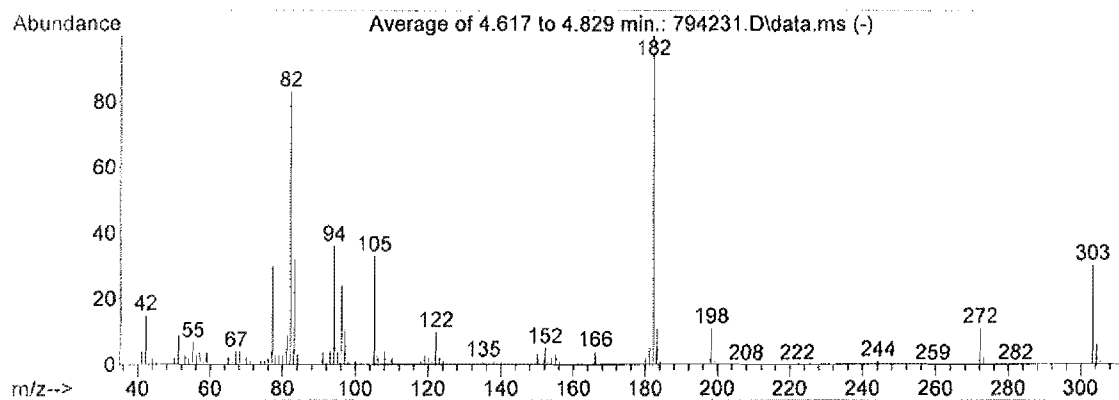


## Information from Data File:

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Sample Name : XXXXXXXXXX  
Submitted by : DXF  
Vial Number : 31  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

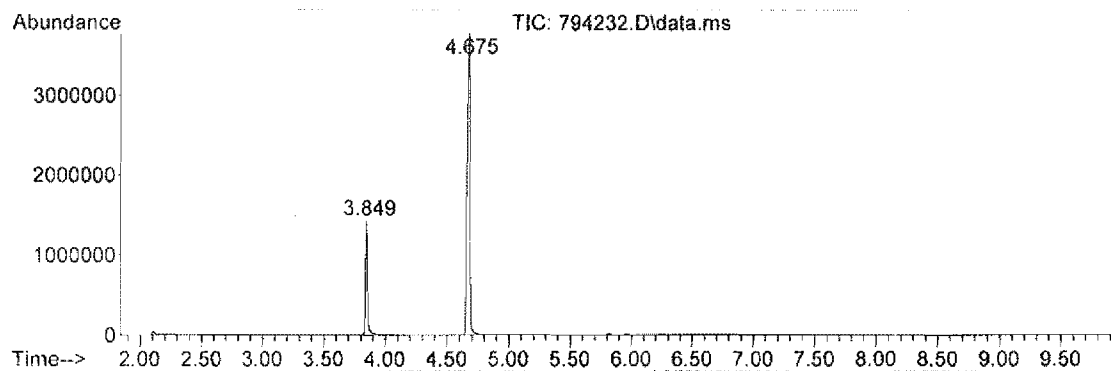
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C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
2	4.68	C:\Database\SLI.L COCAINE	000050-36-2	99



## Information from Data File:

File Name : F:\Q2-2011\SYSTEM 7\06\_29\_11\794232.D  
Operator : ASD  
Date Acquired : 29 Jun 2011 13:58  
Sample Name : XXXXXXXXXX  
Submitted by : DXF  
Vial Number : 32  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



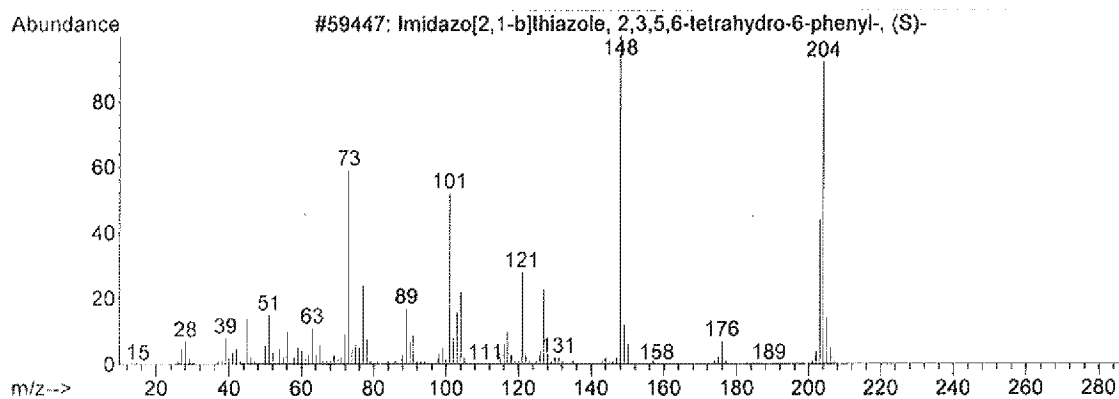
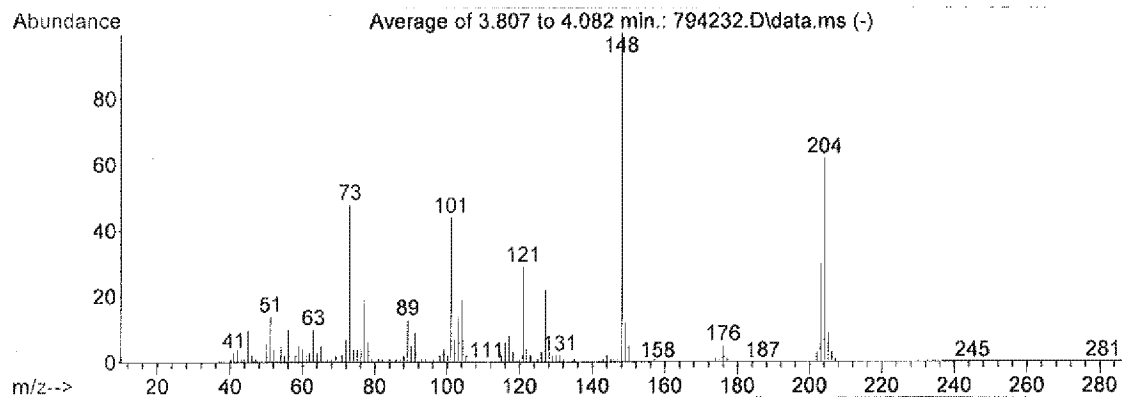
Ret. Time	Area	Area %	Ratio %
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4.675	6183317	78.07	100.00

## Information from Data File:

File Name : F:\Q2-2011\SYSTEM 7\06\_29\_11\794232.D  
Operator : ASD  
Date Acquired : 29 Jun 2011 13:58  
Sample Name : XXXXXXXXXX  
Submitted by : DXF  
Vial Number : 32  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 80  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	3.85	C:\Database\NIST05a.L		
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	014769-73-4	99
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	014769-73-4	98
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	006649-23-6	98



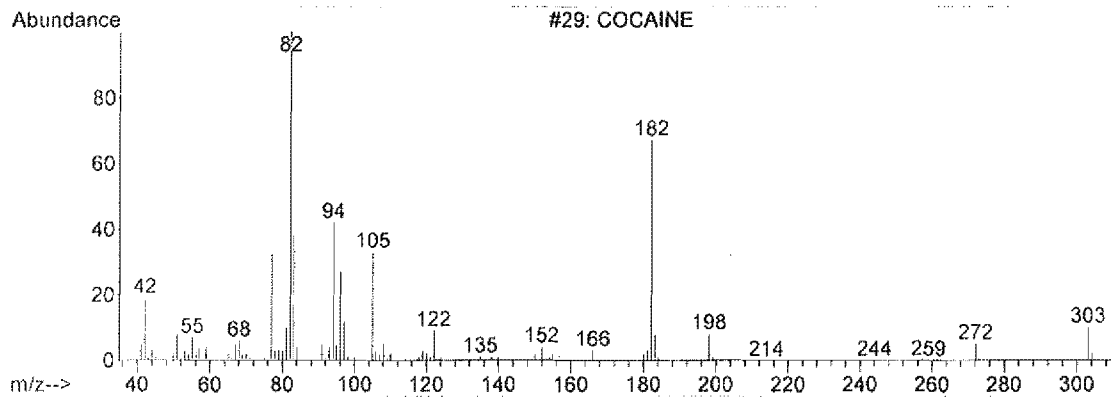
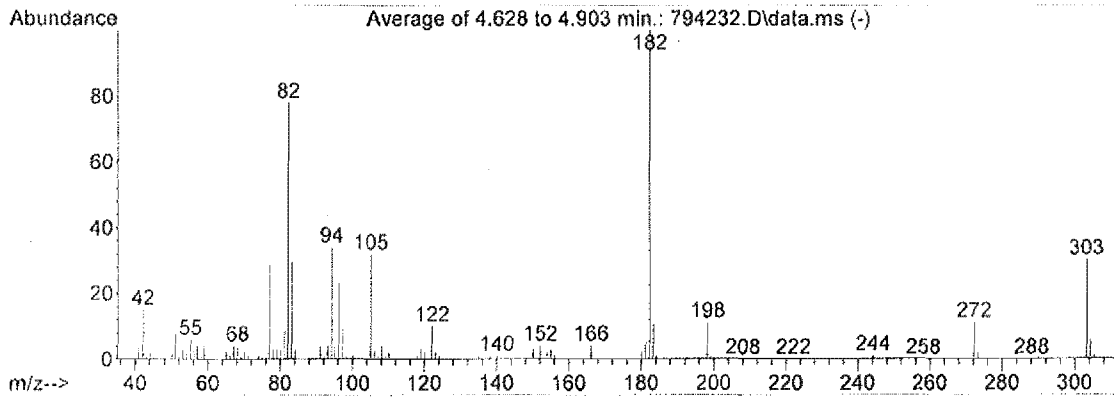


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Operator : ASD  
Date Acquired : 29 Jun 2011 13:58  
Sample Name : XXXXXXXXXX  
Submitted by : DXF  
Vial Number : 32  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

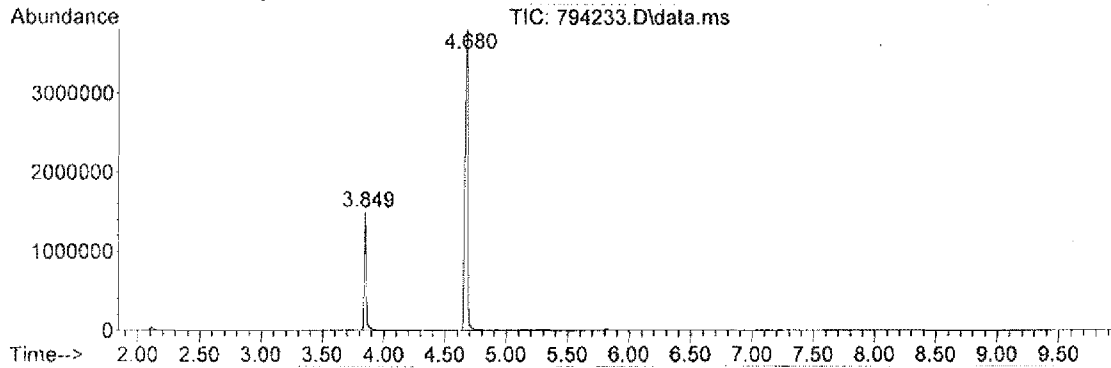
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PK#	RT	Library/ID	CAS#	Qual
2	4.68	C:\Database\SLI.L COCAINE	000050-36-2	99



## Information from Data File:

File Name : F:\Q2-2011\SYSTEM 7\06\_29\_11\794233.D  
Operator : ASD  
Date Acquired : 29 Jun 2011 14:11  
Sample Name : XXXXXXXXXX  
Submitted by : DXF  
Vial Number : 33  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



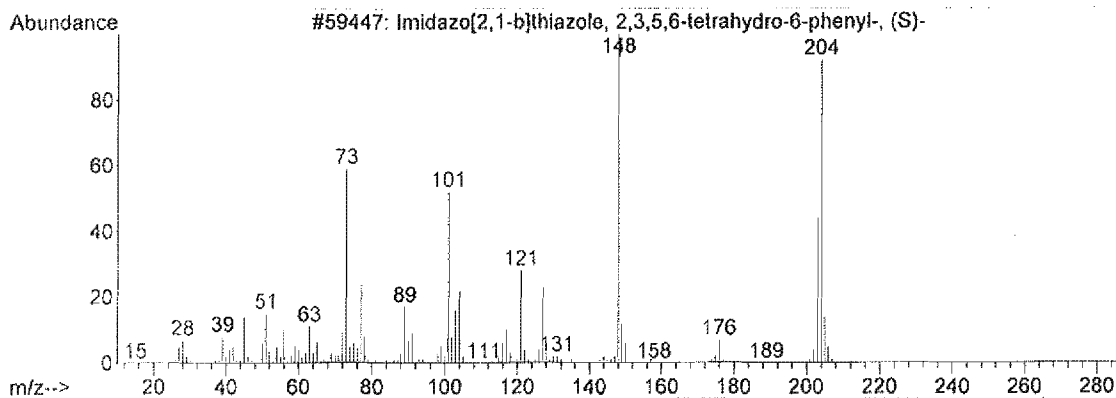
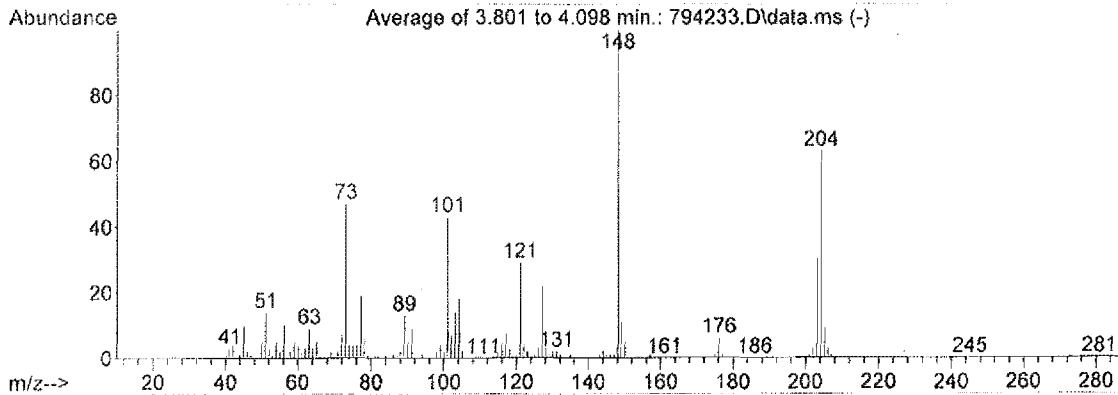
Ret. Time	Area	Area %	Ratio %
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4.680	6362020	77.55	100.00

## Information from Data File:

File Name : F:\Q2-2011\SYSTEM 7\06\_29\_11\794233.D  
Operator : ASD  
Date Acquired : 29 Jun 2011 14:11  
Sample Name : XXXXXXXXXX  
Submitted by : DXF  
Vial Number : 33  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 80  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	3.85	C:\Database\NIST05a.L		
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	014769-73-4	99
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	006649-23-6	98
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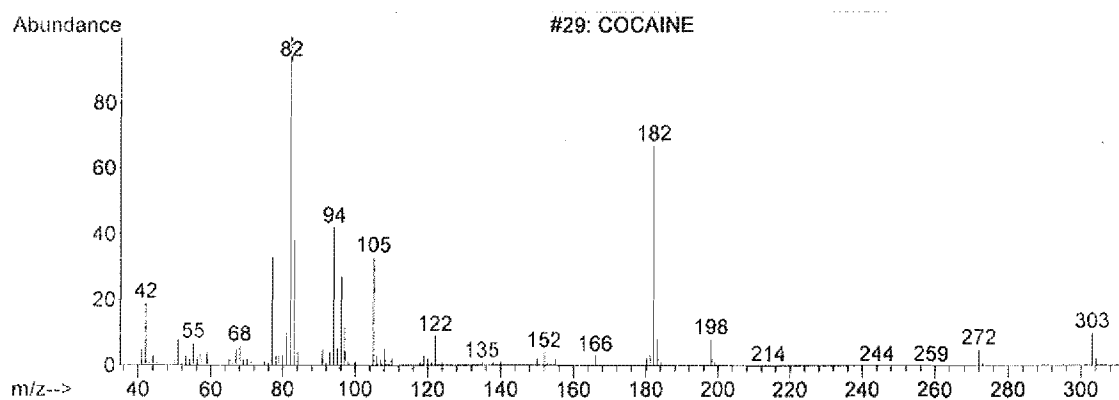
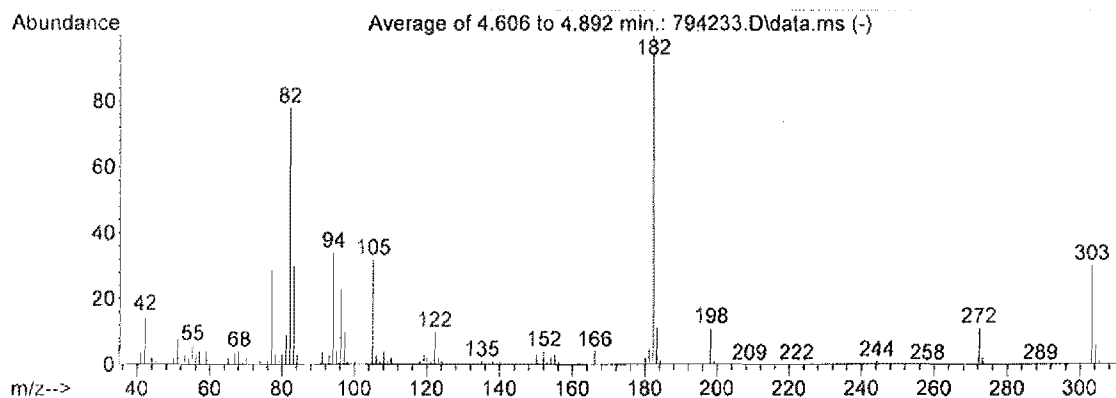


## Information from Data File:

File Name : F:\Q2-2011\SYSTEM 7\06\_29\_11\794233.D  
Operator : ASD  
Date Acquired : 29 Jun 2011 14:11  
Sample Name : XXXXXXXXXX  
Submitted by : DXF  
Vial Number : 33  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

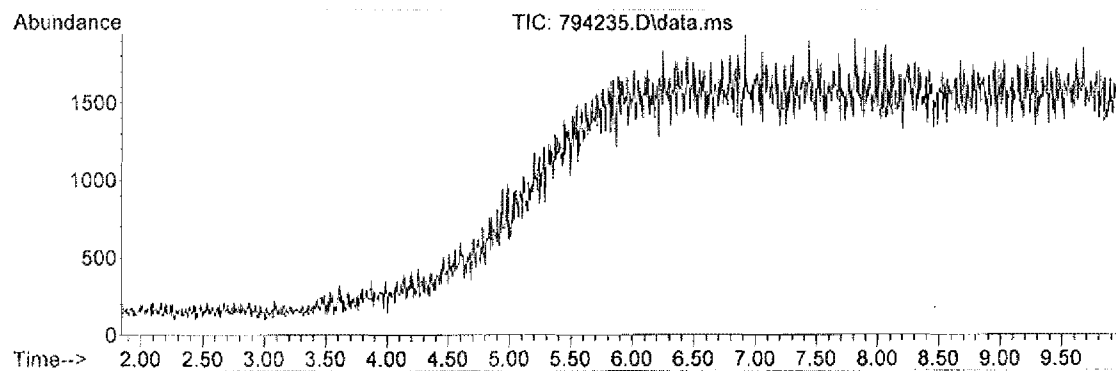
Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 80  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
2	4.68	C:\Database\SLI.L COCAINE	000050-36-2	99



## Information from Data File:

File Name : F:\Q2-2011\SYSTEM 7\06\_29\_11\794235.D  
Operator : ASD  
Date Acquired : 29 Jun 2011 14:36  
Sample Name : BLANK  
Submitted by : DXF  
Vial Number : 1  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

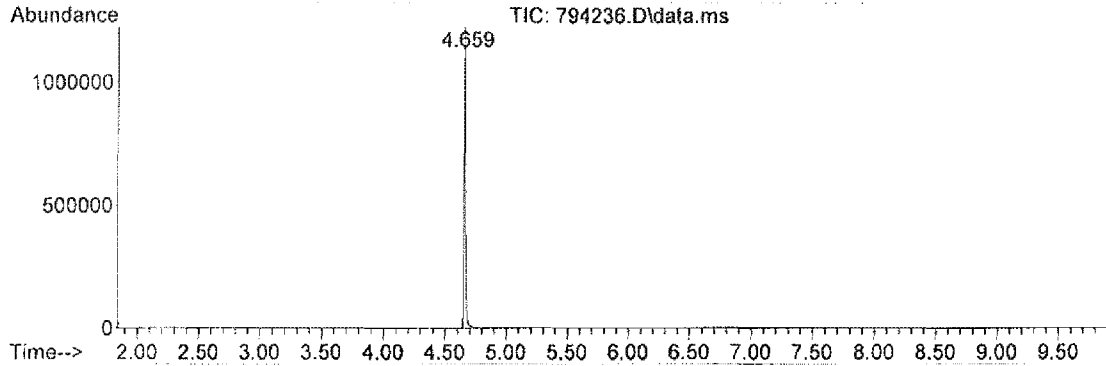


Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

Information from Data File:

File Name : F:\Q2-2011\SYSTEM 7\06\_29\_11\794236.D  
 Operator : ASD  
 Date Acquired : 29 Jun 2011 14:49  
 Sample Name : COCAINE STD  
 Submitted by : DXF  
 Vial Number : 16  
 AcquisitionMeth: DRUGS.M  
 Integrator : RTE



Ret. Time	Area	Area %	Ratio %
4.659	1089436	100.00	100.00

## Information from Data File:

File Name : F:\Q2-2011\SYSTEM 7\06\_29\_11\794236.D  
Operator : ASD  
Date Acquired : 29 Jun 2011 14:49  
Sample Name : COCAINE STD  
Submitted by : DXF  
Vial Number : 16  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 80  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
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